PRAY

Proportion of the Beef Business in the United States Controlled by the Beef Trust, and its Ability to Affect the Prices of Beef

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The Proportion of the Beef Business in the United States Controlled by the Beef Trust, and Its Ability to Affect the Prices of Beef

BY

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THESIS

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THIS IS TO CERTIFY THAT THE THESIS PREPARED UNDER MY SUPERVISION BY

RALPH M. PRAY

ENTITLED THE PROPORTION OF THE BEEF BUSINESS IN THE UNITED STATES CONTROLLED BY THE BEEF TRUST, and ITS ABILITY TO AFFECT THE PRICES OF BEEF.

IS APPROVED BY ME AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE DEGREE

OF BACHELOR OF ARTS in the COLLEGE OF LITERATURE AND ARTS.

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The Proportion of the Beef Business of the United States Controlled by the Beef Trust and Its Ability to Affect the Prices of Beef.

A short history of the cattle industry may not be amiss in this discussion, for necessarily certain conditions have arisen which have made it possible that the "So-Called Beef Trust" could exist.

It is of interest to know of a few facts connected with the growth of this vast industry of today. Columbus brought the first cattle to the West Indies in 1493. From here they were transported by the Spaniards into Mexico, and finally were introduced into what is now a part of the United States, namely Texas, and it is this herd which are the progenitors of the Texas cattle.

Later on cattle were introduced by the colonists into Mass., N. Y., and N. H., and were brought from England, Holland and Denamrk.

These cattle were not imported for the purpose of raising beef cattle, but that the colonists might have the use of milk and its products. Gradually this branch of the industry was outgrown and we find that the cattle were not bred for milk alone, but for beef and its products as well.

Then came the period of the opening of the great west and north-west. As the immigrants found in the valleys of the Ohio, the Illinois, and the Mississippi, plains, which the equal of, their eyes had never before met, and upon these seemingly

endless plains a luxuriant growth of grass reaching to the height of a man, they realized only after many a wasted year that these plains could be made to be extremely profitable. And little by little the cattle industry pushed itself out into the west until now it not only has found a home in this rich valley, but has passed on to the one time unexplored region beyond, the Mississippi, and has been replaced in the north-west territory by still more productive industries, and now we find the industry located beyond the Mississippi, the state of Illinois being the only state east of the river which is one of the five leading cattle states.

There are two conditions which together with the westward movement has made the existence of the Trust possible. These are, the greatly improved methods of packing, preserving, transporting and the refrigerating of beef. And secondly the fact that great economics are realized by the preparing of the cattle for market near the center of production. For these reasons the center of the packer's interests are to be found at points distant from the center of the demand, making it possible to supply the demand from distant and concentrated points, conditions most favorable to the growth of powerful institutions.

Now that we have had a brief outline of the movements which this industry has undergone, let us pass on to the first part of our topic, the proportion of the Beef business of the United States controlled by the Beef Trust. But first it may be well to name the companies which are supposed to compose this trust, and which are sometimes referred to as the Big Six.

1. Armour & Co., an Illinois Corporation
2. Swift & Co., an Illinois Corporation
3. Morris & Co., a Maine Corporation
4. Nat'l. Packing Co., a New Jersey Corporation
5. Schwartzschild & Sulzberg Co. a N. Y. Corporation
6. Cudahy Packing Co., an Illinois Corporation.

These six concerns are located in the eight western packing centers of Chicago, Kansas City, South Omaha, East St. Louis, South St. Joseph, Fort Worth, Sioux City and South St. Paul. We find two of these cities in Illinois, two in Missouri, one in Iowa, one in Nebraska, one in Minnesota, one in Texas and for our purpose let it be understood that Kansas City represents Kansas as a center for her beef interests.

Knowing the position of these chief packing centers we shall look to the reasons for their locations. The following tables will give light to this question.

	Number Neat Cattle	Value	Average Value	Percentage to total No.	Percentage to total Value
No. Atlantic States,	6,339,835;	151,899,421;	23.96;	9.3;	10.3
So. Atlantic States,	4,431,750;	66,321,262;	14.97;	6.5;	4.5
No. Central "	30,621,413;	752,903,887;	24.59;	45.2;	51.0
So. Central "	17,870,663;	313,370,582;	17.54;	26.3;	21.2
Western "	8,455,749;	190,709,481;	22.55;	12.5;	12.9

LEADING CATTLE STATES.

	Number	Value
Texas	9,428,196	163,228,904
Iowa	5,367,630	142,518,902
Kansas	4,491,078	117,640,801
Nebraska	3,176,243	82,469,498
Illinois	3,104,010	82,170,907
Missouri	2,345,000	75,656,807

These tables show that the North and South Atlantic states produce but 15.8 per cent of the total supply of cattle,

and that their value is still less in proportion to the total value namely, 14.8%. The Western states produce but 12.5 per cent of the number of cattle and their value amounts to 12.9 per cent of the whole. These three regions of the U. S. then raise but 28.3 per cent of the total number of cattle, and their combined value amounts to a still less proportion, namely, 27.7 per cent of the whole.

The North and South Central states are the most important producers of cattle in the country and this is especially true of the North Central states where we find 30,621,413 neat cattle, equal to 45.2 per cent of the total number, with a value of $752,903,887 or to 51 per cent of the value of all neat cattle in the United States.

In the South Central division we find 17,870,663 cattle with a value of $313,370,532. This group then is second to the northern group of central states for she produces 26.3 per cent of the cattle and their value amounts to 21.2 per cent of the whole.

These statistics make it very evident that the centers of the beef industry exist in the territories in which are found the greatest number of cattle and where the combined number of cattle of these districts amounts to 71.5 per cent of the total, and where their combined value amounts to 72.2 per cent of the total value. Still from our second table we may explain more definitely the reason for the location of these centers.

In North-eastern Texas we find the city of Fort Worth, one of the eight centers of the packing industry. Why Texas

should not have more than one city of the eight which is a center, has its explanation, although Texas has over four million more cattle than any other state whose value amounts to nearly $21,000,000 more than the cattle of any other state. 1st Texas stands off from any of the other six leading states, which does away with the strong tendency existant in the North of having surrounding territory act as a tributary. 2nd Cattle of Texas are not shipped directly to Fort Worth for the purpose of slaughtering but with the idea that they be reshipped to some northern state that they may be fattened for market. 3rd Although Texas has a great number of cattle yet their average value is very low and as but a small proportion of the cattle handled are slaughtered each year necessarily the total value of the cattle slaughtered will not equal the value of cattle slaughtered in a northern center, and thus Texas could not support more than one center.

Texas the greatest cattle state we have seen has one city as a center of the beef packing business. Now let us look to the states in which the other centers are situated and see the reason for such being the case. Following Texas in importance, both with regard to the number of cattle, and their value, we have Iowa in which we find the city Sioux City, which does not rank as an important a center as the state of Iowa does among the other states as a cattle producer. Sioux City is a center for cattle from the North-western states of North and South Dakota. Kansas City, Mo. is the center to which the cattle of Kansas are shipped; Omaha is the city to which Nebraska sends her cattle;

Chicago is the center for all surrounding states, and is the greatest center, since the surrounding states are all very wealthy in cattle and Chicago offers great facilities which makes it the leading center. East St. Louis and St. Louis are centers for parts of Missouri and Arkansas, Ind. Territory and Oklahoma, St. Paul is a center for the surrounding territory and the Dakotas.

Thus we see that the centers of the packing industry are found in the seven leading cattle states, and are supplied by the most productive surrounding territories.

According to our first table it is seen that on June 1, 1900, there were 67,822,336 cattle in the U. S. Now it is clearly evident that if our national herd remains the same from year to year the annual slaughter must not exceed the annual supply, less the loss from disease and exposure.

On June 1, 1900 there were

7,023,731	steers one year old and under 2 years
7,263,433	heifers one year old and under 2 years
1,329,572	bulls one year old and under two years
15,616,736	total annual supply
2,500,000	total annual loss from disease and exposure
13,116,736	annual supply.

484,725	number of cattle killed near N. Y. City
1,500,000	number of cattle killed in cities of over 50,000 and not included in eight centers.
165,000	number of cattle not included in inspections for large cities reported by Bureau.
5,332,180	number of cattle killed at 8 centers.
7,481,905	

Presuming that people of towns of less than 50,000 consume as much beef as people of towns larger than 50,000 we may determine the amount of beef consumed in villages and cities of a

population less than 50,000 by this method.

In 1903, 55% of the population of the U. S. live in towns of less than 50,000 inhabitants. Taking a sufficient number of these towns so widely separated as to make as correct an average as possible for the amount consumed for all towns we find that in these 800 towns 60% of the beef was locally killed, leaving 40% to be supplied from the 7,481,905 cattle killed in large cities. Thus it is determined that the 60% of the cattle killed locally by 55% of the people of the U. S. would amount to 3,685,110 Adding the number of cattle slaughtered in all towns we find the number to be about 11,117,015 which leaves to be slaughtered on the farms and ranges the difference between the annual supply and the 11,117,015 killed in cities and villages less the 500000 cattle shipped abroad. Thus there is left to be slaughtered on farms and ranges the difference between the 11,117,015 cattle killed in cities and villages plus the 500000 exported, and the annual supply of cattle. We find from these figures the number of cattle killed upon the farms and ranges to be 1,499,721.

The following table shows the number of cattle passed by the U. S. inspectors at the 8 centers and the proportion of the cattle killed by the Big Six.

City	No. passed by Inspectors	No. killed by Trust	Percentage
Chicago	2,164,413	2,072,421	95.8
Kansas City	1,003,029	999,292	99.6
So. Omaha	728,374	728,374	100.
So. St. Joseph	398.042	394.042	99.
St. Louis	656,742	633,000	96.5
St. Paul	67,500	65,618	99.5
Ft. Worth	225,686	225,686	100.
Sioux City	64,668	64,668	100.
	5,332,180	5,206,983	97.7%

It is practically a simple thing to calculate now the proportion of the beef controlled by the trust in the U. S. and in the cities when we have the total annual supply, the total annual slaughter in large centers and the total slaughter of the Trust. According to our 5th table 5,206,983 cattle were slaughtered in 1903 by the trust. Referring back to table #3 we find the total annual supply to be 13,116,736 cattle. Thus the trust slaughters 40% of the total annual supply. Table #5 shows that the Trust killed in 1903 5,206,983 cattle and referring to table #4 we find that the total number of cattle slaughtered in cities of over 50,000 inhabitants amounts to 7,481,905 so that the trust kills 69 7% of the cattle killed in the cities of the United States with 50,000 or more inhabitants. Table #5 shows that of the 5,332,180 cattle passed for inspection by the bureau of animal industry at the 8 large centers the trust slaughtered 5,206,983 or 97.7% of the total number of cattle slaughtered in these 8 centers.

We have now the percentages of the number of cattle slaughtered by the trust in the U. S., in the cities of the U.S. with a population of over 50,000 and in the eight packing centers. These are 40, 69.7 and 97.7 per cent respectively. Truly it may be said that these figures represent the proportion of the beef business done in the U. S., by the trust and yet in our discussion of the ability of the trust to effect the prices of beef we will see how these per cents are changed in the actual workings of the trust.

The latter part of our subject for discussion, the Ability of the Trust to Affect the Prices of Beef is of vital importance to the American since it has been shown thru investigation of 2567 workingmens' families in industrial communities in the U. S. in 1901, that out of every dollar spent for food 6½ cents was spent for beef, while only 15 1/3 cents out of every one dollar was spent for food. Looking at the expenditure for beef in another way is seen that the amount spent by the average workingman's family for beef is a little more than equal to the amount spent for the six items of tea, coffee, sugar, molasses, rice and potatoes, or is an amount equal to the expenditure for the articles flour, cornmeal, bread and milk.

An advance of 2¢ per pound in the price of beef means an additional expenditure equal to the cost of lighting or to the combined costs of taxes and property insurance, or to an amount equal to ¾ of the expenditure for tobacco. The price of beef then is an important factor in the cost of living for the American workingman.

It is for us to determine now as nearly correctly as we are able to judge, whether the trust has control of the factors which makes the prices of beef rise or fall, or whether there are other important factors affecting the prices of beef over which the trust has control, and hence is responsible for the making of arbitrary prices as it is often accused of.

The question of the ability of the trust to affect the supply and demand of beef is a complicated one. With regard to the demand it is seen that in the last 15 years the most important

factors are the increase in the population, the better industrial conditions, the larger export trade. This last condition which in itself has partially made the trust possible, is also a condition which affects the demand for beef. This condition is the refrigeration of beef, which allows the trust to compete abroad and which thus increases the demand for the remaining supply at home. In reference to the other two conditions stated which affect the demand we may say that the trust has no influence upon the population only in an indirect manner which is proportionately small. In regard to the better industrial conditions which causes a greater demand we have no way at the present part of our discussion in knowing whether the trust is a beneficial factor or a detrimental factor to this general condition, and thus do not know what part it plays in this one important of the three factors of demand. Suming up the arguments on both sides it seems evident that the trust does not have a controlling influence directly on the demand, nor does it thru the fixing of prices, which brings into consideration too intricate a discussion to determine whether indirectly it thereby controls the demand thru the price.

As to the supply of cattle we must consider the corn crop, the timothy hay crop, the land available for grazing purposes, and the attitude of the cattleman towards the raising of cattle for market.

The corn crop affects the supply of cattle as corn is a very necessary product for the better grade of cattle. The price of corn has its influence on the supply in two ways. First, on the marketing of cattle partly grass fed, and secondly, on the

price of cattle as corn is the most important item in the prepar-ation of the better grades of beef.

As to this consideration the trust does not influence any power nor has it the ability to fix the price and control the supply of corn. Thus this factor in the supply of cattle, the one most important probably of all factors is not controlled by the trust.

This consideration is equally true of the timothy hay crop and we may likewise draw the same conclusions with regard to the ability of the trust to regulate the supply and price of hay.

As to our third consideration that of the available land for grazing purposes. The trust has no direct influence upon the settlement of these great western grazing districts, and as settlers move upon them and find the land can be put to a more profitable use, naturally the less profitable occupation gives way to the latter and we then find the first two factors in the supply, playing a more important part in the supply than was the case before these lands were settled, since the cattle are taken from the plains and are fattened by the products of the lands from which they were driven.

The last point which we take into consideration, the attitude of the cattleman towards the raising of cattle is affect-ed by the returns which he gets upon his investment. Thus it is evident that the trust will not cause the cattleman to go out of business entirely by holding the price of cattle at a point, if such is possible, at which the producer will be unable to make a profit.

Then it may be this one last consideration which the trust may possibly control, but in its control we must take into consideration the principle that unless the trust is the regulation of the price, places the same at a point at which only the average net gain may be obtained for itself, some other of the hundreds of other capable concerns will enter into the field and compete with the trust, which will soon cause the price of cattle to seek the natural competitive level. It does not seem plausible under these conditions now to state that the trust has the power to control any one of the considerations which affects the supply of the beef cattle.

There is, however, one debatable question left in regard to the trust's ability to regulate the supply thru their power to influence prices paid for marketed cattle from day to day. It has been shown that the trust controls 97.7% of the cattle slaughtered in the 8 slaughtering centers. This is for practical purposes an absolute control and thus the trust might thru the method of arbitrarily raising and lowering the prices cause the cattle raiser to enter into the enterprise with the hopes of obtaining the high price, and thus making a supply greater than the demand. But if this is the case sooner or later the raiser of cattle will learn whether or not he is making a profit upon his investments and if the trust has a monopoly, one of these two things will happen. First: Either the independent plants will in time restore competition and again give the farmer some chance of making an average net gain upon his investment or, secondly, the packer will be compelled to guarantee to the cattleman a certain

price for his cattle. It makes no difference to the cattleman which of these two conditions exists, but it is a fact that the raiser of cattle will refuse to carry on an unprofitable business forever. This very fact will demand of the packer that he change his tactics if they are founded on uneconomical laws or else he will find his plants idle for the want of a supply of cattle. The packer cannot in a series of years influence the farmer in believing that he is undertaking a profitable business when he knows absolutely that the cattle industry has shown to him that he has put his capital, time and labor into an enterprise to receive something less than nothing in return.

So far in our discussion of the ability of the trust to affect the supply and demand it seems very evident that a preponderance of evidence points to this one conclusion that the trust does and cannot for a period of time control the supply and demand nor has it the power to control a predominate part of either the supply or demand.

We recognize at this point in our treatment that the ability of the trust to regulate the price thru either the control of the supply or demand is not very great and yet let us look still further and see what a combination of conditions is necessary to affect the price of beef.

It is undoubtedly true that there exists a relationship between the supply of cattle, the population, the consumption per capita and the price. The consumption per capita in the last 15 years has increased 25%, the supply of cattle has increased 16.6% and the population has increased 30%, while the increase in the supply has been cut down by an increase of 72.9% in the export

trade.

Again we may find that we cannot alone consider the number of cattle to determine the weight of the beef marketed. This is clearly seen when the differences between the weight of the cattle of 1890 and 1902 are compared. If the average weight of the cattle of 1890 had held good in 1902 there would have been added 19,047,609 pounds to the supply of beef placed upon the Chicago market alone or June 1st, 1902. And again let us consider the following table and determine what the facts from this tell us.

	Mean price per 100 lb. good extra Steers in Chicago	No. cattle rec. at U.S. yards Chicago	No. Cattle rec. at Chi. Kansas City Omaha & St. Louis	Mean price per bu. No. 2 cash corn	Mean price per tnn No. 1 timothy hay
1890	4.72½	284.037	513.737	.33 7/16	10.25
91	5.70	235.618	442.393	.55 15/16	12.50
92	4.37½	265.717	469.120	.50 3/8	13.50
93	5.62½	245.974	435.198	.40 1/8	11.
94	4.17½	213.772	419.139	.37 11/16	9.75
95	5.57½	167.859	358.200	.31 ½	9.75
96	4.10	208.948	439.444	.27 5/16	11.50
97	5.02½	203.108	466.955	.23 3/8	9.00
98	4.90	213.3[illegible]	428.212	.33 ½	9.75
99	5.30	203.132	391.698	.33 ¼	10.25
1900	5.37½	195.102	429.500	.37 9/16	11.
1901	5.75	225.433	473.921	.43 13/16	12.25
1902	7.10	204.813	462.292	.61 5/16	13.75

In studying this table we must not fail to take into consideration the fact that the number of cattle does not necessarily represent proportionately the amount of beef to be obtained from the same, as we previously have seen. This fact is largely due to the age at which cattle were marketed in the early nineties and in 1902. The average age at which cattle were marketed in 1890 was 2.18 years while in 1902 the average was only 1.63 years. This shows a decrease in the average age at which cattle were marketed of a little over six months. This is due somewhat to the improved methods of breeding, and to the fact that it is more economical to market cattle at this age since holding them over for the next six months would not bring in return as large a net profit as if they were sold earlier, although the weight of the animal is not as great. In other words the greatest net return can be obtained by disposing of the cattle at an earlier date than was previously thought was the case, deducting the influence which better breeding has played in this matter.

It is seen from table #6 that the prices of corn and hay coupled with the number of cattle marketed at Chicago and at the four centers of Chicago, Kansas City, Omaha and St. Louis have a relationship which runs very closely. As the price of these two conditions increases or decreases the price of beef follows in the same line and when deviations are found it is due to the relationship between the supply and demand of the beef in the market, and to the many other influences which have already been stated.

As we have already seen the trust does not control the elements which makes a price at which cattle may be profitably marketed, and still there remains this question. Can not the trust, since it controls 97.7% of the cattle slaughtered in the 8 centers, fix the price over and above a natural competitive price?

Truly we will not leave out the important element here of possible outside competition. But is it not to the advantage of the trust if they can control this enormous percentage by lowering the price to a point at which competitors cease to exist and still remain a going concern and during the remaining time put the price at a point at which they are making a very large profit? If thru their immense resources they are able to run on a close margin and a less return on capital than other concerns and still make their business pay and then during the periods at which there is no close competition make large net returns, then it will pay them to run in this manner for their average net gain will be greater than if they at all times kept competitors out of the market.

It may be well to introduce here before we go on to our final conclusions a discussion of the ability of the trust to affect the prices of beef in Eastern and Southern cities.

In the four cities cited in the table below the trust controls the following percentages of the beef trade.

New York	75%
Boston	87%
Baltimore	50%
Philadelphia	53%

From these percentage s it is seen that the Big Six has a very great influence in the eastern cities. One advantage the trust has in these localities distant from the center of supply which it does not have in places nearby, is that the people and merchants both retail and wholesale are not so prejudiced against the trust for they hear and know less of its workings. Then through concentrated action the Big Six may hold their supply just outside the reach of the eastern merchant and since the trust plays such an important part in the filling of orders for beef it gives to the trust the chance of using its great control of supply as a lever on prices and may within reasonable limits affect the price to their greatest advantage, more so than could be done in districts near the center of supply, although the trust might control a similar proportion of the beef as she does in the eastern cities.

Since the trust controls such a large proportion of the beef trade in these eastern cities it makes it possible for them to control the prices to a greater extent than in the other large cities of either the central or southern states. First, because the trust controls a higher average per cent of the business in the east than in the other districts. Secondly, because the source of supply is distant from these eastern cities, and the local supply is smaller in proportion to the populat ion.

Next with regard to the Southern cities. The following table will give the per cent of the beef trade controlled in the various cities by the trust.

Norfolk and Newport News,	Va.	90%
Richmond	Va.	50
Charlotte,	N.C.	30
Wilmington	N.C.	50
Charleston	S.C.	45
Columbia	S.C.	25
Savannah	Ga.	70
Jacksonville	Fla.	70
Nashville	Tenn.	50
Macon	Ga.	67
Birmingham	Ala.	75
Mobile	Ala.	20
Vicksburg	Miss.	50
New Orleans	La.	33.

These fourteen southern cities which represent a population of nearly 1,000,000 people buy beef from a trust which controls no less than 25% of the trade in any one city and which controls as high as 90% in another, with an average control in all these cities amounting to 52%.

There is a condition which exists in these southern states which does not exist in the northern states. The trust controls in the south a small proportion of the cattle killed in the smaller cities and villages and thus the trust cannot at the expense of either the large cities or the small continue to carry on business and remain a paying concern.

But since the trust controls such a small percentage of the slaughtered beef in the southern states, namely 20-25% it can not control the prices to such advantage as it is able to do in the New England states where the trust controls between 75-80% of the slaughtered beef. However, the trust is able to control the price in particular cities of the south in porportion to their control of the beef trade within that city, but not to such a degree as in the North-eastern or eastern states, since the trust

cannot for any length of time offset the loss due from competition in one city by charging a higher price in another.

In conclusion we may draw these inferences.

The trust cannot control the price absolutely and independent of the important factors in reference to the supply and demand. But as the trust controls such a large percentage of the slaughtered beef in the U. S. it is somewhat free to regulate the profits that it shall make. The percentage which we obtained with reference to the amount of beef slaughtered in the U. S. by the trust is not of much importance for the cattle slaughtered upon farms and ranges do not enter but slightly into competition with the trust. Thus it is practically correct to say that the trust slaughters 46.8% of the cattle which compete in the market, and it slaughters 97.7% of the cattle in the eight centers. Because of this fact it exerts a stronger influence upon the price than if it controlled only the 46.8% of the cattle slaughtered, since it controls thru concentrated action, rather than thru several independent concerns. The local concern does not look to the country at large for the quotation of prices, but to the centers of the industry where the trust controls the large percentage of the trade.

The trust controls but 40% of the beef sold in the towns of the U. S. Nevertheless she controls 40% and competes against the other 60% which is most likely divided among several other jealous concerns, giving to the trust the largest individual share of the business.

Then in conclusion let me say that the trust can control the price of beef between the points at which it may sell during the greatest competition, and at a price which will not induce any concern of equal strength to enter the field and compete. The variations in price may not seem very great but let us judge this matter from what is shown by the following.

The trust controls 46.8% of the beef which enters into competition. She controls it thru an old and established business and reliable relationships. A new concern entering the field has an outlook similar to the following. A chance to take from the trust all trade which is dissatisfied with its dealings with the trust and which has not already handed over its business to some one of the existing competitors of the trust and itself. And finally let me close with this question. How can a new plant with all things equal to the trust, exist and make a profit equal to that made by the trust when she can obtain but a small proportion of the beef trade?

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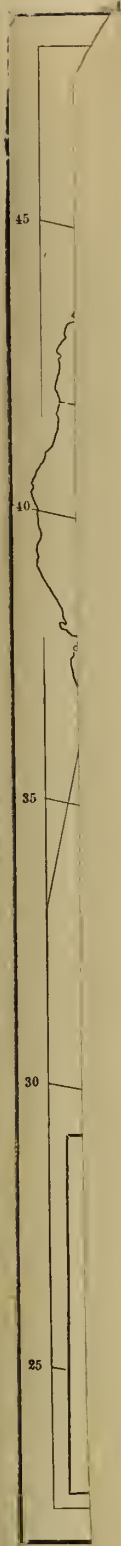
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Map showing location of eight leading trust packing centers.


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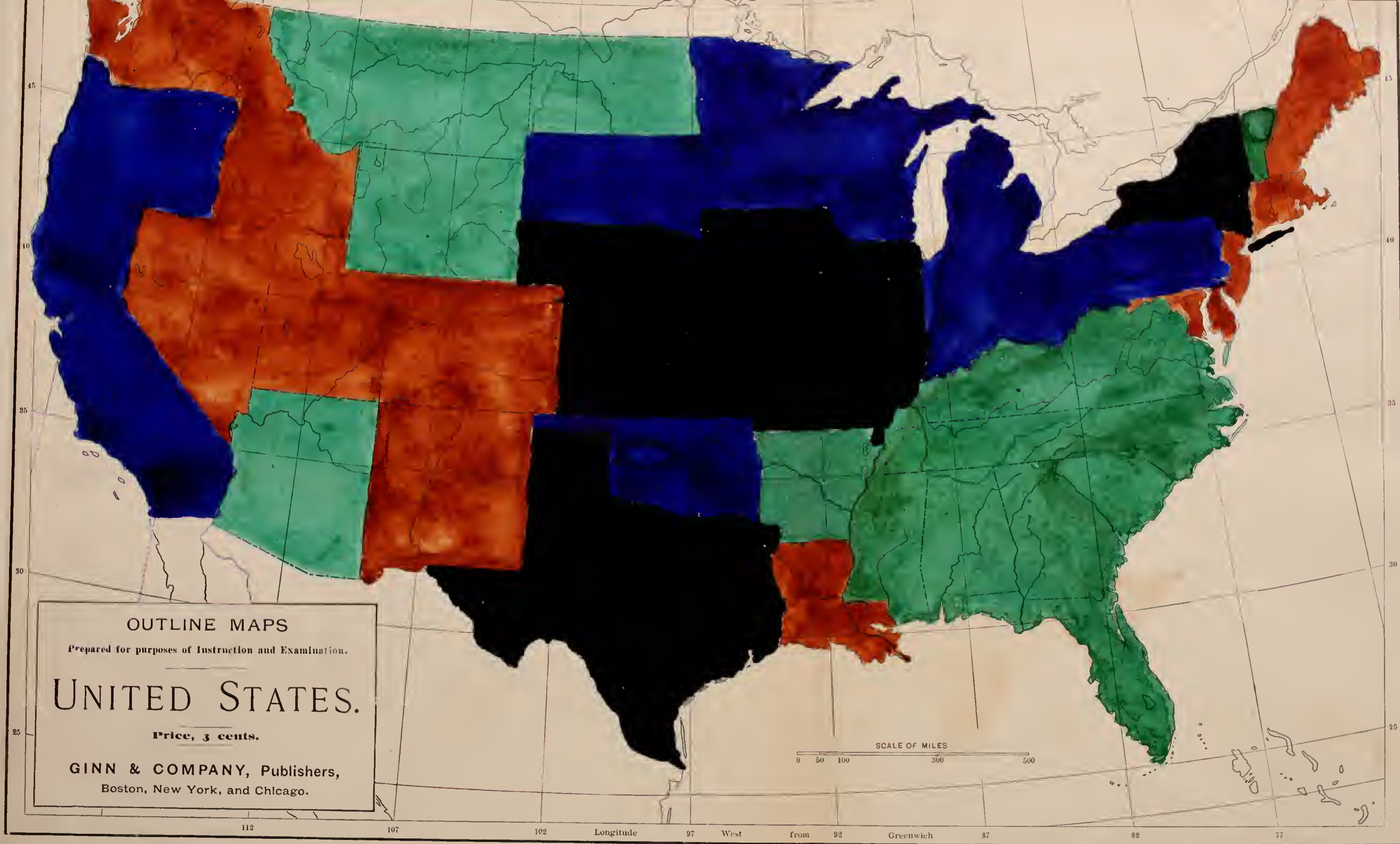

Map showing density of neat beef cattle production by states.

Under 500,000 — 500,000 to 1,000,000. — 1,000,000 to 2,000,000 — Over 2,000,000.


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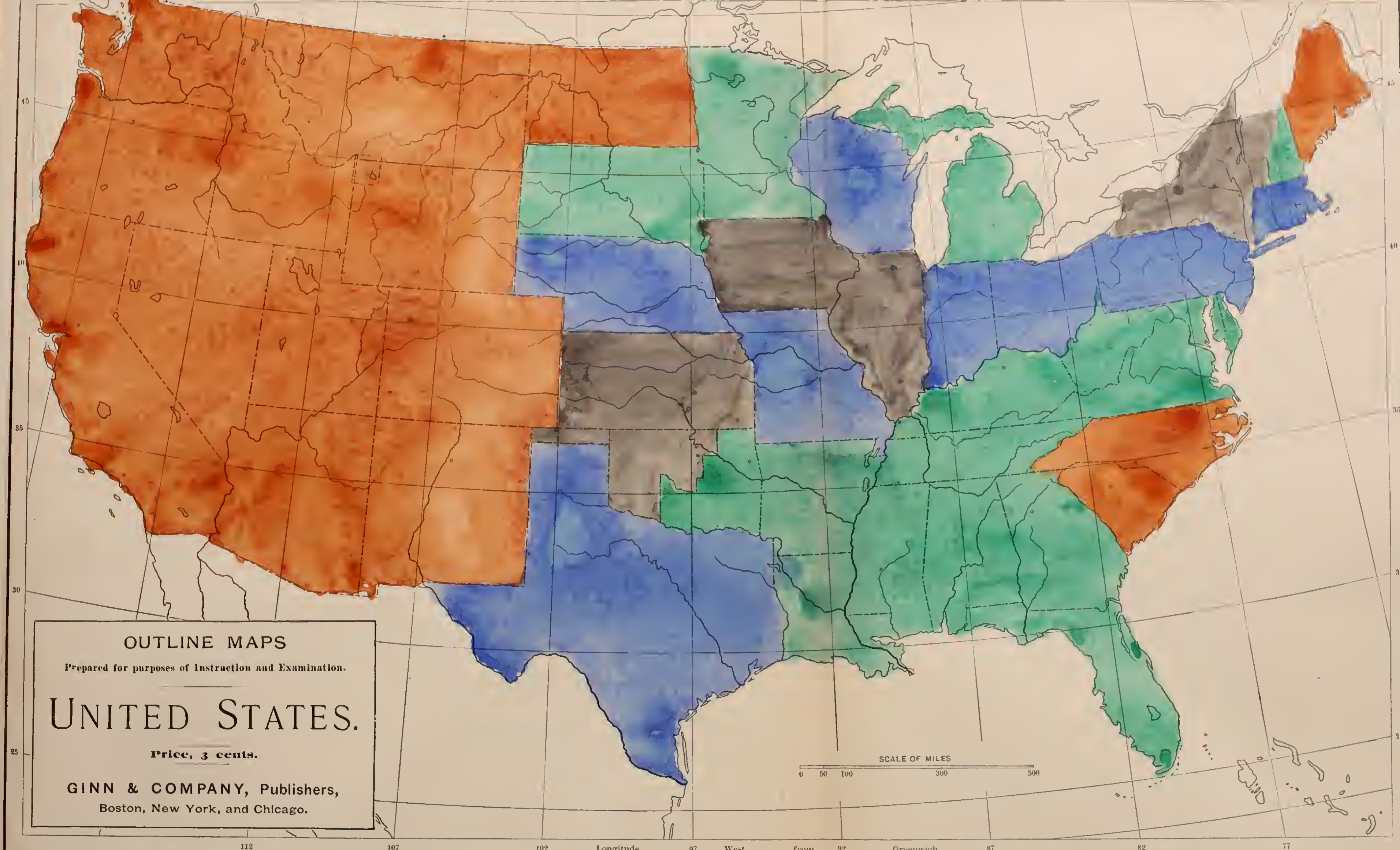

Map showing density of neat beef cattle production per square mile by states

Under 10 — From 10 to 25 — From 25 to 40 — From 40 to 72